Project Planning Phase

Project Planning Template (Product Backlog, Sprint Planning, Stories, Story points)

Date	28 October 2023
Team ID	Team-592538
Project Name	AUTOMATED PREDICTION MODEL FOR DIABETIC RETINOPATHY USING CNN
Maximum Marks	8 Marks

Product Backlog, Sprint Schedule, and Estimation (4 Marks)

Use the below template to create product backlog and sprint schedule

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1,2	Data Collection and Preparation	USN-1	As a Data Scientist, I want to access reliable historical Bitcoin price data, so I can analyze and predict trends effectively.	1	High	Varun Kumar, Sai Krishna
Sprint-3,4	Model Development and Training	USN-2	As a Machine Learning Engineer, I want to create a baseline Prophet model for Bitcoin price prediction, so I can establish a foundation for further optimization.	2	High	Sai Krishna, Lokesh
Sprint-5,6	Evaluation and Validation	USN-3	As a Product Owner, I want to visualize model predictions against actual Bitcoin prices, so I can interpret the results and make informed decisions.	3	High	Varun, Sai Krishna, Lokesh
Sprint-7,8	Front-End Development	USN-4	As a Front-End Developer, I want to implement interactive charts on the user interface, so	5	High	Varun, Lokesh

			users can visualize both predicted and actual Bitcoin prices dynamically.			
Sprint-9,10	Cloud Infrastructure and Deployment	USN-5	As a DevOps Engineer, I want to select an appropriate cloud service provider and set up infrastructure, so the application and model can be hosted securely and efficiently.	6	High	Lokesh
Sprint-11,12	Performance Optimization	USN-6	As a QA Engineer, I want to define comprehensive test objectives and scope, so I can ensure the application functions as intended and meets quality standards.	3	Medium	Varun
Sprint-13	Evaluation & Testing	USN-7	As a quality assurance specialist, I want to test the model's performance rigorously and evaluate its effectiveness for Bitcoin price prediction.	2	High	Sai Krishna

Project Tracker, Velocity & Burndown Chart: (4 Marks)

Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed (as on Planned End Date)	Sprint Release Date (Actual)
Sprint-1,2	8	1 Day	28 Oct 2023	28 Oct 2023	9	28 Oct 2023
Sprint-3,4	8	1 Day	29 Oct 2023	29 Oct 2023	8	29 Oct 2023
Sprint-5,6	8	3 Days	30 Oct 2023	01 Nov 2023	10	01 Nov 2023
Sprint-7,8,9	12	3 Days	02 Nov 2023	04 Nov 2023	11	04 Nov 2023

Sprint-10,11,12	12	2 Days	05 Nov 2023	06 Nov 2023	5	06 Nov 2023

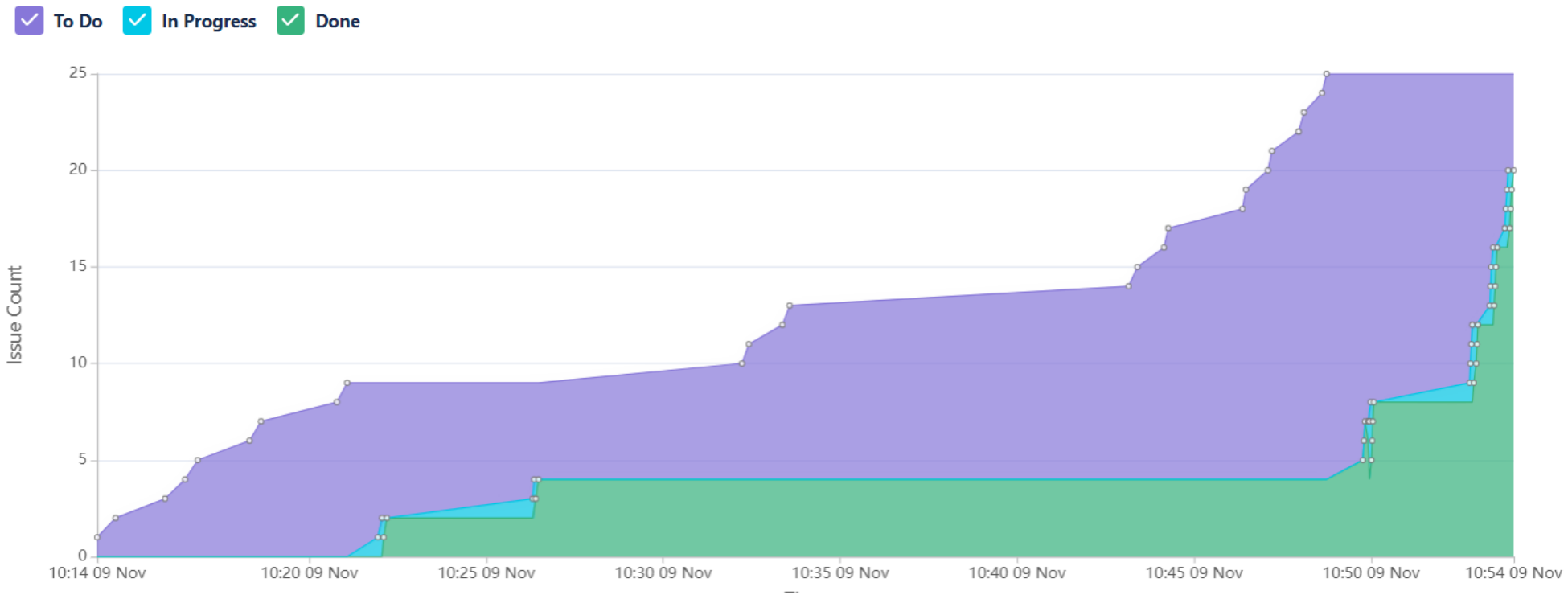
Velocity:

The team velocity of the 10-day sprint duration is:

Velocity = (9+8+10+11+5) / 5 = 43 / 5 = 8.6

Average Velocity** = Sprint duration/velocity = 10/8.6 **= 1.16

Burndown Chart: A burn down chart is a graphical representation of work left to do versus time. It is often used in agile software development methodologies such as Scrum. However, burn down charts can be applied to any project containing measurable progress over time.


To Do
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Done
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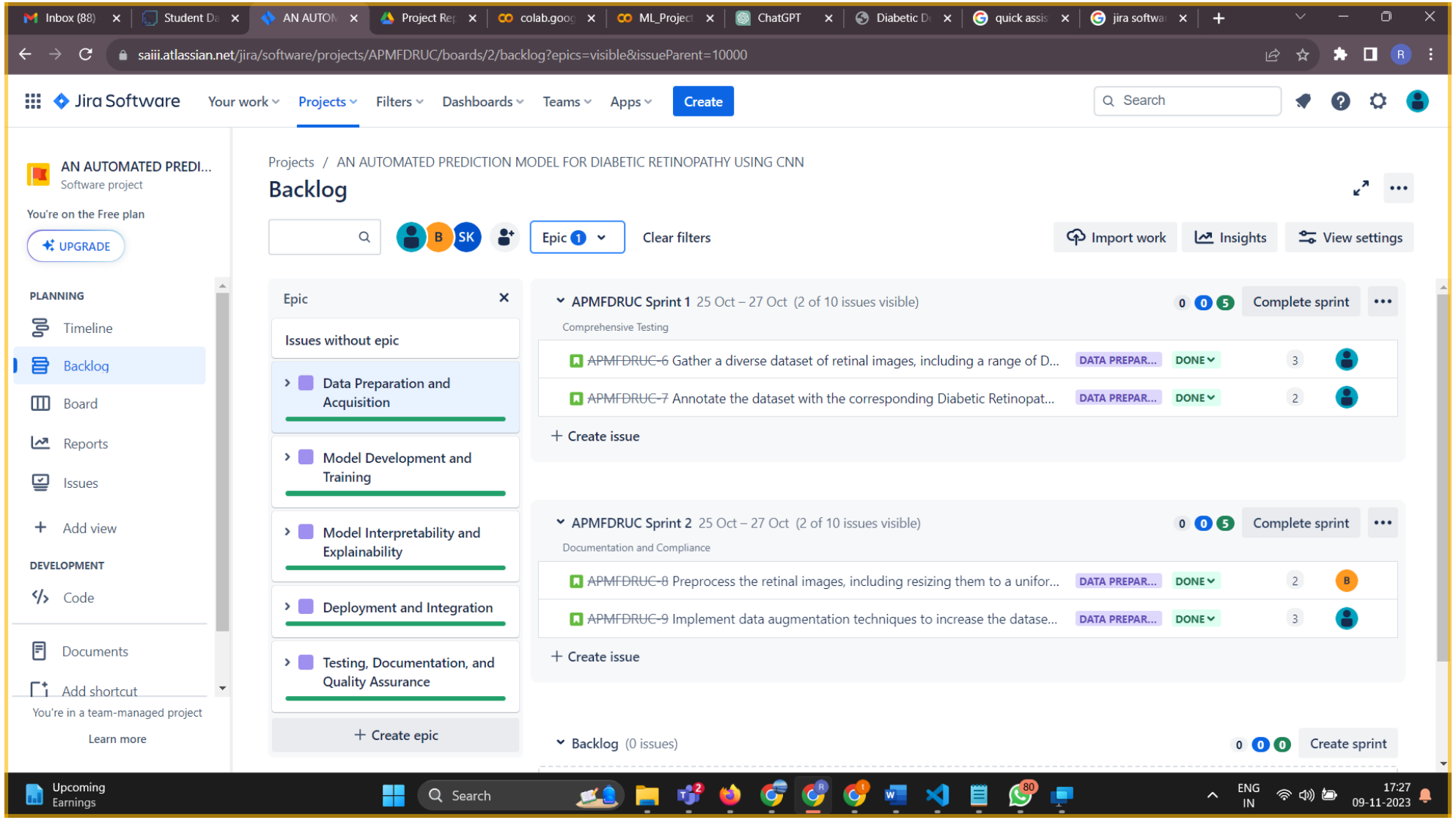
Board: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Issues without epic
Data Preparation and Acquisition
Model Development and Training
Model Interpretability and Explainability
Deployment and Integration
Testing, Documentation, and Quality Assurance
Create epic
APMFDRUC Sprint 1 25 Oct – 27 Oct (2 of 10 issues visible)
Comprehensive Testing
Complete sprint
APMFDRUC-6 Gather a diverse dataset of retinal images, including a range of D...
APMFDRUC-7 Annotate the dataset with the corresponding Diabetic Retinopat...
DATA PREPAR...
DONE
Create issue
APMFDRUC Sprint 2 25 Oct – 27 Oct (2 of 10 issues visible)
Documentation and Compliance
APMFDRUC-8 Preprocess the retinal images, including resizing them to a unifor...
APMFDRUC-9 Implement data augmentation techniques to increase the datase...
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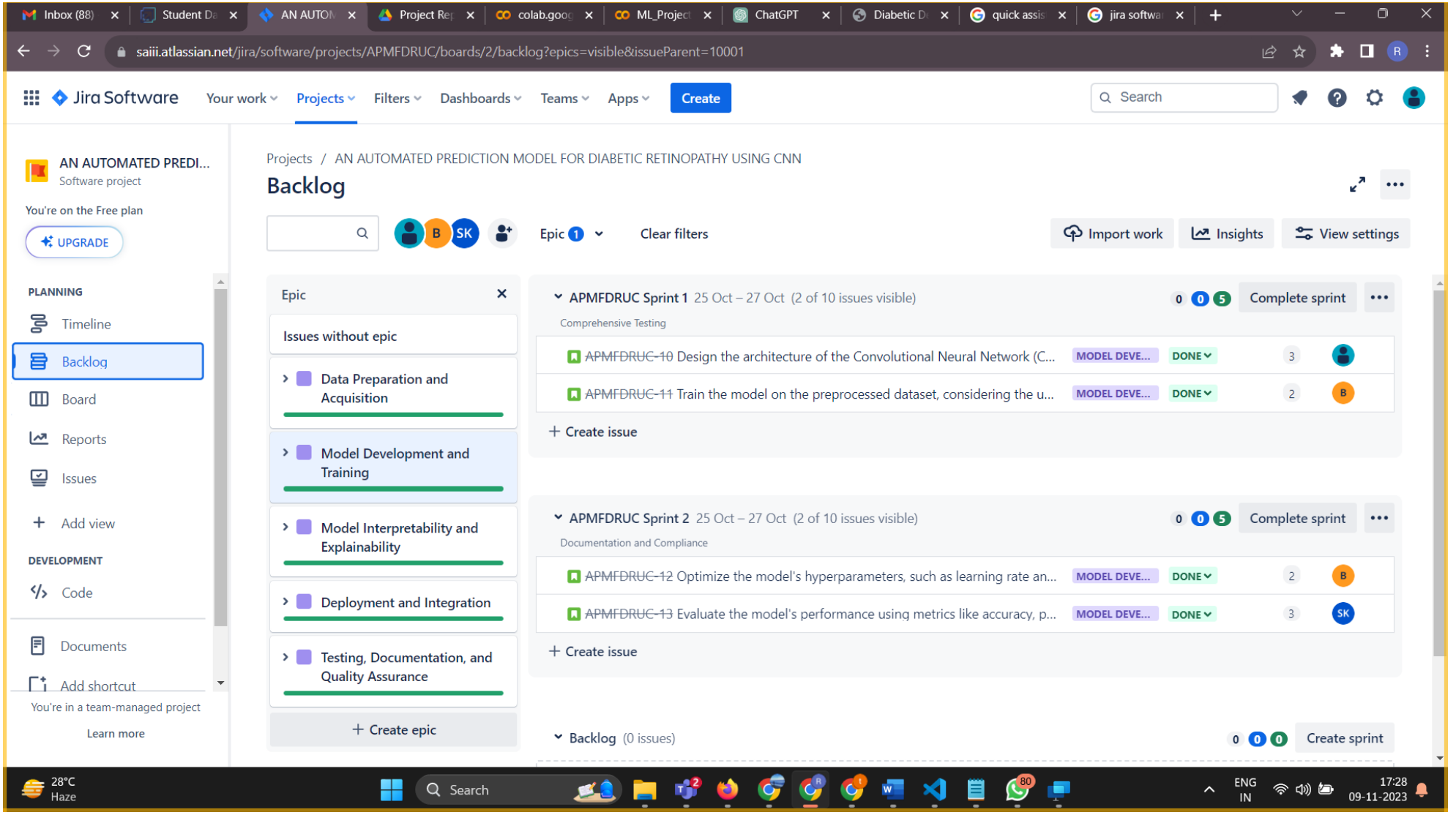
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Testing, Documentation, and Quality Assurance
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Complete sprint
Comprehensive Testing
APMFDRUC-10 Design the architecture of the Convolutional Neural Network (C...
APMFDRUC-11 Train the model on the preprocessed dataset, considering the u...
MODEL DEVE...
DONE
Create issue
APMFDRUC Sprint 2 25 Oct – 27 Oct (2 of 10 issues visible)
Complete sprint
Documentation and Compliance
APMFDRUC-12 Optimize the model's hyperparameters, such as learning rate an...
APMFDRUC-13 Evaluate the model's performance using metrics like accuracy, p...
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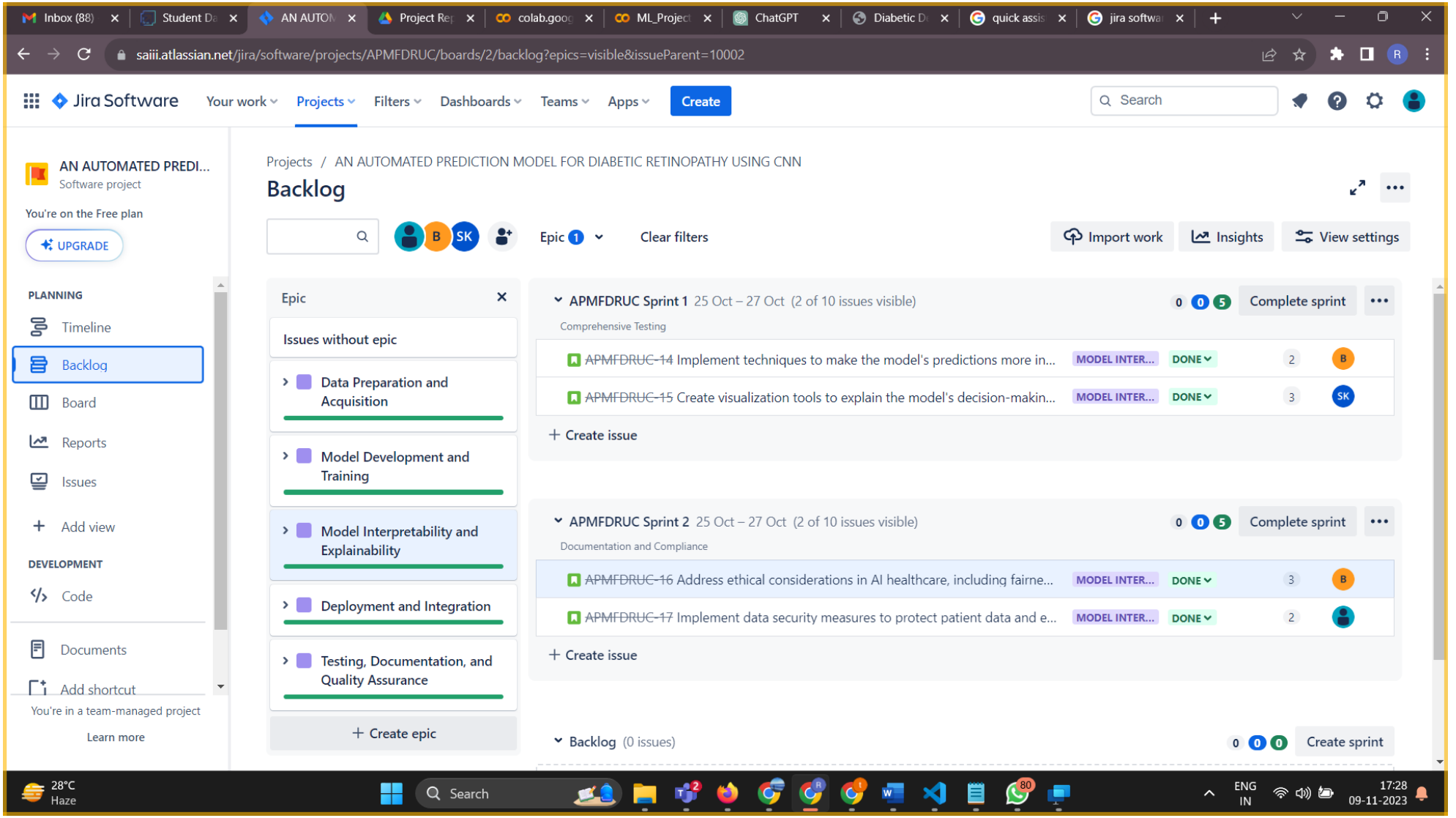
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Complete sprint
Comprehensive Testing
APMFDRUC-14 Implement techniques to make the model's predictions more in...
APMFDRUC-15 Create visualization tools to explain the model's decision-makin...
MODEL INTER...
DONE
Create issue
APMFDRUC Sprint 2 25 Oct – 27 Oct (2 of 10 issues visible)
Complete sprint
Documentation and Compliance
APMFDRUC-16 Address ethical considerations in AI healthcare, including fairne...
APMFDRUC-17 Implement data security measures to protect patient data and e...
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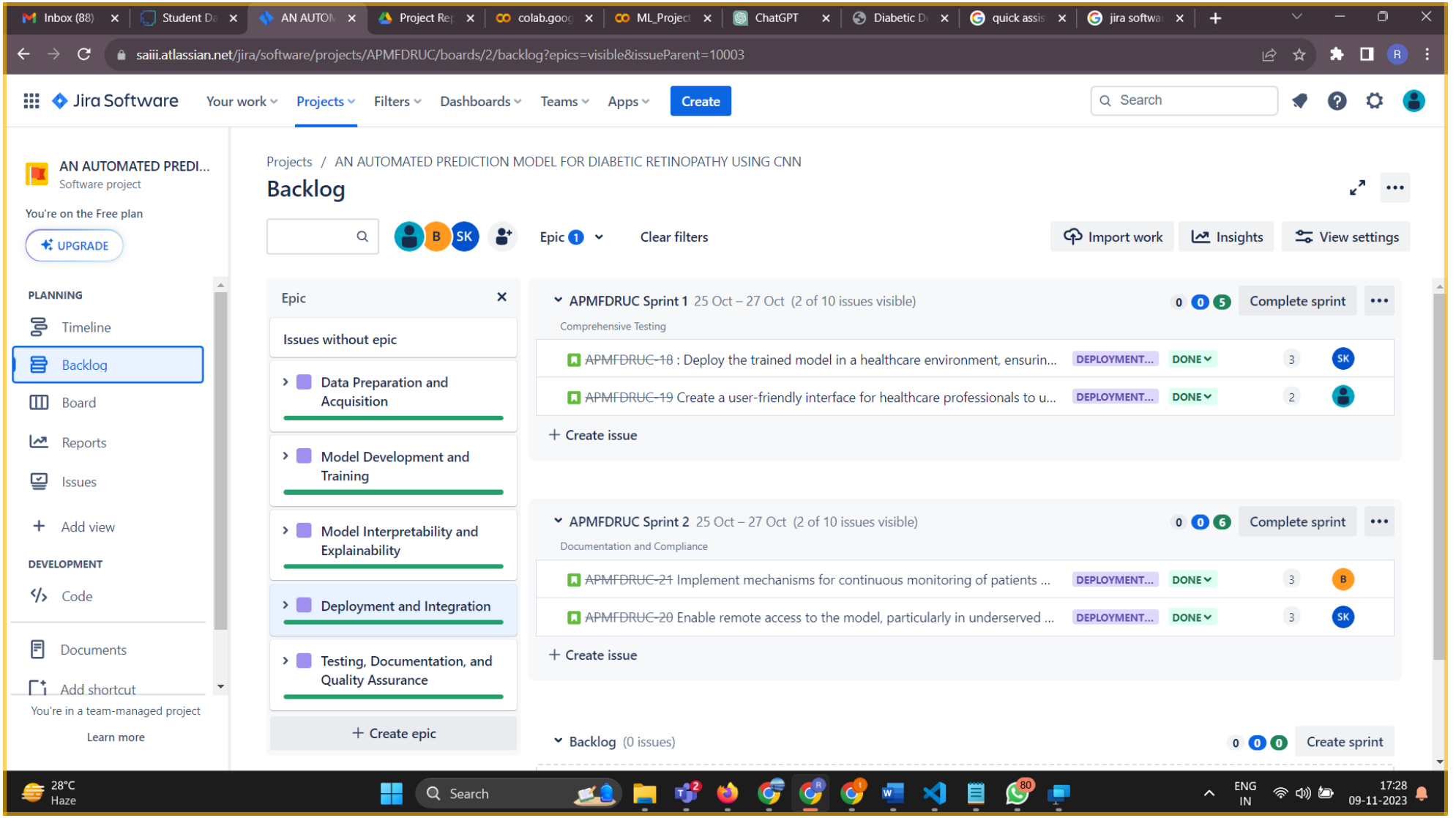
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Comprehensive Testing
Complete sprint
APMFDRUC-18 : Deploy the trained model in a healthcare environment, ensurin...
APMFDRUC-19 Create a user-friendly interface for healthcare professionals to u...
DEPLOYMENT...
DONE
Create issue
APMFDRUC Sprint 2 25 Oct – 27 Oct (2 of 10 issues visible)
Documentation and Compliance
Complete sprint
APMFDRUC-21 Implement mechanisms for continuous monitoring of patients ...
APMFDRUC-20 Enable remote access to the model, particularly in underserved ...
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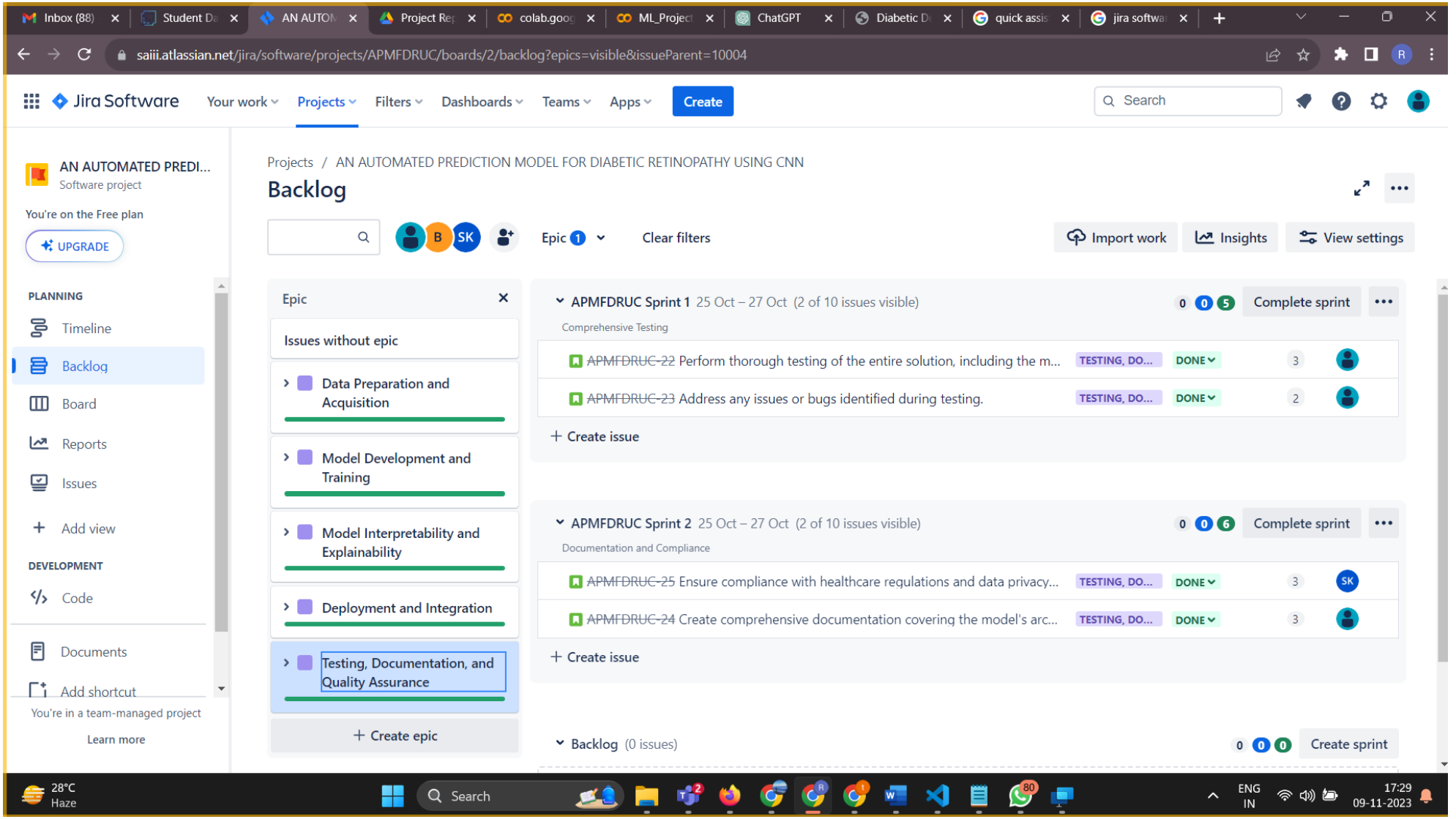
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Complete sprint
Comprehensive Testing
APMFDRUC-22 Perform thorough testing of the entire solution, including the m...
APMFDRUC-23 Address any issues or bugs identified during testing.
TESTING, DO...
DONE
Create issue
APMFDRUC Sprint 2 25 Oct – 27 Oct (2 of 10 issues visible)
Documentation and Compliance
APMFDRUC-25 Ensure compliance with healthcare regulations and data privacy...
APMFDRUC-24 Create comprehensive documentation covering the model's arc...
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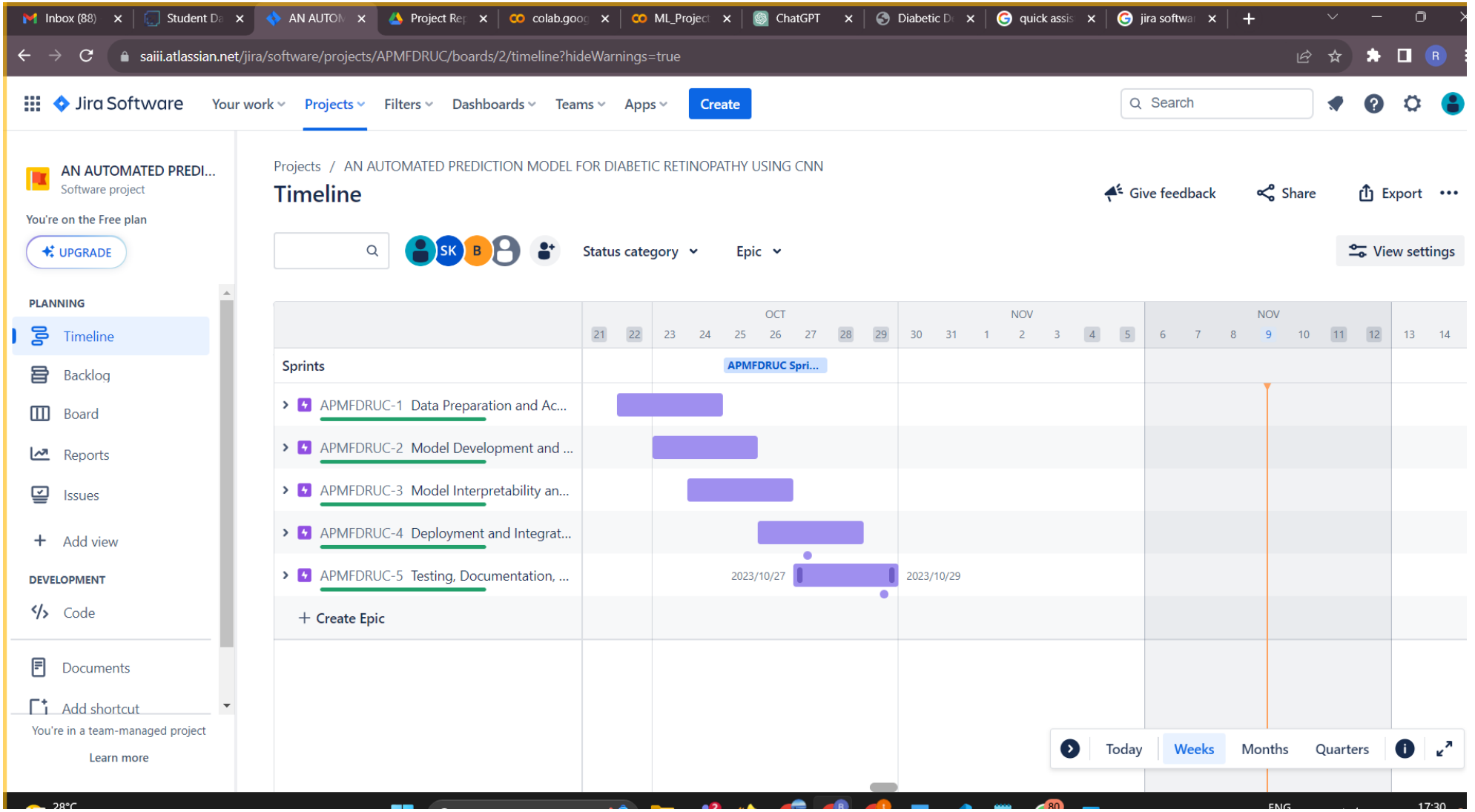
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APMFDRUC-3 Model Interpretability an...
APMFDRUC-4 Deployment and Integrat...
APMFDRUC-5 Testing, Documentation, ...
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